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A COMMERCIAL TRAINING COURSE IN COLLEGES OF PHARMACY.¹

BY JOSEPH P. REMINGTON.

Colleges of pharmacy were created for the purpose of training young men in their vocation. Naturally and primarily, their first function is to make students proficient in technic, and when the colleges were founded in America, chemistry and materia medica were recognized as foundation studies, and they are considered as such to-day.

The early history of pharmaceutical education reveals a curious, but, nevertheless, strong tendency to thwart and oppose the efforts of the far-sighted pioneers who saw in the education and training of the young the gradual uplifting of the craftsmen who were intrusted with the responsible duties of making and dispensing medicines.

Very slowly the colleges fought their way, and it required nearly half a century of earnest self-sacrificing labor to demonstrate the fact, which should have been recognized from the beginning, that education was a key which would solve mysteries and develop great possibilities.

In some cases, undoubtedly, self-interest on the part of the employer, or petty jealousy, led a preceptor to advise an assistant to keep away from colleges; that he, himself, had no use for these expensive and time-consuming new-fangled ideas, but that he could learn from his "boss" far more than those upstart teachers

¹Read at the annual meeting of the Pennsylvania Pharmaceutical Association, June, 1900.

could give him; and even to this day men can be found who use the same talk. Many a poor student in the past has been compelled to earn every penny for his college education, and has succeeded, in spite of enormous drawbacks and hindrances; but the colleges steadily continued their work, becoming stronger every year and succeeded in spite of the most dire prophecies of disaster and failure.

Nearly every advance was met with determined opposition, and how sad is it to hear the wail of some old rule-of-the-thumb druggist, who has discovered, late in life, that all along he had been on the wrong side, and many an honest opponent has confessed to the writer in language something like this:

"If, when I was a young man, I could have foreseen the value of an education, and could have begged or borrowed the money to go to college, I would have done so and have been saved years and years of toil, and what has taken me a long time to learn through the happenings of experience I could have acquired in two years of training. Naturally, I do not want to admit that I do not know my business. I can't acknowledge that these young fellows just out of college know as much as I do. I cannot afford to do it, and in some things they do not know as much as I do; but I have seen to it that my son has not been deprived of the advantages which I threw away, and I sent him to the best college that I could find. But then, the colleges in my day were small affairs, and the systems of instruction imperfect; but I must say there are some things taught in the colleges which I have no use for. The point that I see clearly is that those early years of one's life, when the mind is receptive, and accustomed to study (having just come from school), are the least valuable years in a man's business life, and then is the time when the foundation can be laid strong, sure and deep."

The writer has no desire to dwell upon this aspect, for it has its pathetic side, and happily, education is rapidly working a cure. Now, if this presents a true picture of the past, is it not true that the same reasoning is equally applicable to branches of pharmaceutical instruction other than those recognized as theoretical, or knowledge obtained through the study of books? The answer to this is found in the magnificent equipment of our laboratories in the colleges, and the great strides made in practical teaching in our universities and technical schools.

No college can be considered, to-day, worthy of the name which does not place in the hands of its students the mortar, pestle and spatula, the test-tube and the burette, and the microscope and culture apparatus; and it must not be admitted for a moment that the laboratory instruction, while useful in giving a student polish and finish, fails to equip him with knowledge which will be valuable in his future life as a bread winner.

But the writer wishes to call attention, at this time, to a branch of education which has been in the past sadly neglected; it is that of commercial training. That pharmacy is a business as well as a profession comes home strongly to that student who is so unfortunate as to have a lop-sided mind, and who vainly thinks that all he has to do to reach the highest success is to study books and, like the closet naturalist, get his knowledge of life from studying the works of others.

What an awakening comes to such an one who, after winning gold medals and prizes galore in his examinations, finds when he gets behind the counter that his magnificent memory for facts will not avail him as much as he thought, when he comes to roll pills, fold powders and meets the perplexing details of every-day counter practice! And it is this phase of college education which is the great stumbling block to the employers who are successful, practical business men. One frequently hears from such men the remark, "Send me a good clerk, I don't want a gold medal man."

The aim in every good college of pharmacy should be to neglect no department of knowledge which might make its graduates successful pharmacists, and no effort should be spared to entirely cover the ground. Impressed with these convictions, the writer, ten years ago, expressed the opinion that business methods should be taught in our colleges of pharmacy. Gradually this thought has been working its way. With some educators the idea at once took root; others again approved, but deemed the time inopportune; others still were to be found who thought it outside of the functions of a college of pharmacy to teach business methods. Possibly the greatest number to-day are willing to give any rational plan for accomplishing the object a fair trial.

Within four years this opportunity has been taken advantage of by the writer in the Philadelphia College of Pharmacy, and fortunately, through the liberality and progressiveness of the trustees

of the Philadelphia College of Pharmacy, it was made possible to establish an optional course on commercial training. This course has been successfully inaugurated by Prof. F. G. Ryan, and so far as it has gone, has thoroughly demonstrated its practicability.

The object of the course is to teach students in pharmacy simple methods of bookkeeping, which will enable the pharmacist to know at any time and at short notice whether he is making money or losing it, proper methods of drawing checks, drafts, promissory notes and even how to write orders on wholesale druggists; in fact, to so train him in correct and accurate methods, that when he takes a position or opens a store he will not be absolutely at sea in these most important particulars. How few retail druggists throughout the country have ever been systematically instructed in these vital details!

Every wholesale druggist who has been made acquainted with the plan of the new course speaks of it in most encouraging terms. Those who oppose every innovation simply because it never has been done before will, of course, be in evidence. One can almost anticipate the objections of the chronic objectors. "Why don't the employer teach assistants bookkeeping?" The answer to this is, what percentage of employers are using to-day simple, proper methods of keeping their books? How many druggists know at the end of the year how much money they have lost or made? What percentage of losses are made in a year through carelessness and improper methods of keeping books? How many clerks are imbued with a proper sense of the responsibility and duty to their employers, to accurately record sales?

Unfortunately, the scientific and professional pharmacist too often inherits a contempt for such routine work as bookkeeping, and if fortune smiles upon such an one and business pours in upon him, in spite of his limitations, does he not frequently have to employ some bookkeeper who knows nothing of pharmacy and is good for nothing else in the store? And if the employer knows nothing of bookkeeping, has he not literally turned over the keys of his business life into the hands of the enemy?

It is probably too much to expect at once complete approval of the ideas which are advanced in this paper; but the writer sincerely trusts that in the near future no college graduate shall be permitted to receive his diploma until he has passed a satisfactory

examination in commercial training; and of the college who first successfully inaugurates such a course and compels the student at some time to pass an examination in this department, it is safe to say that her graduates will be sought for and preferred by employers because, while they have been thoroughly trained in the knowledge which will enable them to perform all of their duties as chemists and pharmacists, they are not likely to become commercial failures, and lose the results of their hard-earned labors by failing to know "what they have made," add to "what they have made," and, in fact, "cover the whole ground."

One other objection may be heard, "Why don't the man who needs training of this kind go to a commercial college?" The answer to this is, that none of the commercial colleges have ever thought it worth while to establish a course suited for pharmaceutical students, and it is not likely that they could make such a course remunerative to the commercial college, because of the limited number of students who would voluntarily take such instruction.

The courses in commercial colleges are, moreover, very elaborate and usually cast upon lines involving large operations, and the instructors in such colleges are not familiar with the special needs of pharmaceutical business. This paper may be concluded by quoting a remark of a college graduate of ten years' standing, who said: "I only wish that I could have taken a course in commercial training, instead of the special course which I took at the college. I am sure I would now be making a comfortable living, for it would have enabled me to have saved many business losses and some bitter experiences that I have gone through, because I thought business details and methods too insignificant to give them time and thought, at a time in my life which I could have easily spared for this practical work."

It is probable that the great depression through which the drug business has been passing in late years has brought home to many the need of such training, and the words of the graduate above quoted will doubtless find an echo in the minds of many, similarly situated.

URIC ACID IN URINE.—The urine is boiled with an excess of a solution of potassium permanganate, acidified with H_2SO_4 , when the uric acid is quantitatively converted into urea, which is then estimated by the hypobromite process.—A. Jolles, *Z. phys. Chem.*, 1900, 222.

GASOMETRIC ANALYSIS.¹

BY FRANK X. MOERK.

In the present Pharmacopœia only the nitrites are estimated by a gasometric process, although a number of other official and unofficial substances can be estimated by similar methods. As the nitrometer is an expensive piece of apparatus, and requires care and some experience in its manipulation, an effort was made during the past winter to devise a simple and inexpensive apparatus suitable for use in the laboratory and store for the estimation of sweet spirit of nitre; the greatest difficulty encountered was in perfectly removing the air from the apparatus, as this will react with the liberated nitrogen dioxide and cause low results; this was accomplished by the little device, described below, which is recommended in numerous text-books on volumetric methods to regulate the flow of liquids from burettes. After overcoming this difficulty and having the apparatus in good working order, this appeared so simple that the literature was looked up on the subject, and it was found that Dr. E. R. Squibb had covered some of the same points in an apparatus described in *Ephemeris*, Vol. III, p. 1200. In the use of Squibb's apparatus the air is not perfectly removed and mercury is used as the liquid to be displaced, for, as Dr. Squibb states, "several fluids, including brine, were tried in endeavoring to avoid the use of mercury, but none would answer."

The apparatus to which I now call your attention has the following advantages over that of Dr. Squibb: No retort stand or support of any kind and no spring clamp are needed, and, lastly, the apparatus is charged with brine.

As can be seen from the illustration, *Fig. 1*, the apparatus consists of a 4-ounce saltmouth bottle, with doubly perforated stopper; a short piece of glass tubing, flush with the lower end of the cork, is connected by a small piece of rubber tubing with a small funnel; in this rubber tubing at *a* is placed a very small section of glass rod ($\frac{1}{4}$ - $\frac{3}{8}$ -inch) with fused ends, and having about the same diameter as the tubing, so that it can be introduced without much difficulty, and, at the same time, tightly close the rubber tubing. A long glass tube bent twice at right angles, passing through the other

¹ Read at the meeting of the Pennsylvania State Pharmaceutical Association, June, 1900.

perforation of the cork, serves as a syphon when the apparatus is filled, and also supports the small funnel; the outer end of this tube should be bent upwards or else fused to decrease the diameter so as to prevent air from entering and displacing the brine. Another vial, or, better, a graduate or graduated cylinder, is used to collect the displaced fluid.

ESTIMATION OF SPIRIT OF NITROUS ETHER.

To prepare the apparatus for use almost fill the bottle with a saturated brine, close with stopper and place syphon-tube in a vessel containing brine; then, while pressing together the rubber tubing about the small glass plug to form a small channel between the latter and the tubing, apply suction by mouth at the small funnel

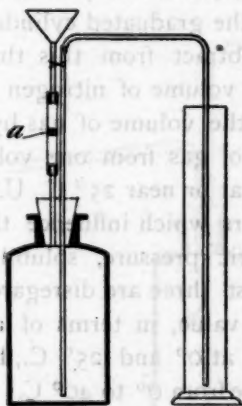


FIG. 1.—Apparatus for the Estimation of Spirit of Nitrous Ether.

until the latter is partly filled with brine when the tubing is released; it will be found that all air has been removed from the bottle and tubing below the plug (should a bubble or so be found below the cork a little manipulation will cause it to enter the glass tube, and it can then be withdrawn by suction after compressing the tubing). The apparatus is now to be adjusted to *zero*; this simply means allowing the brine, by compressing the rubber tubing at *a*, to flow out of the syphon-tube until the brine in the funnel stands level or even with the upper end of the rubber tubing. Replace the vessel containing the brine by the graduated glass, and you are ready for the assay. Allow 5 c.c. sweet spirit of nitre to

slowly run into the funnel and from this into the bottle by compressing the rubber tubing (prevent air from entering the bottle by not allowing the liquid to get lower than the zero mark), rinse funnel and tubing with 5 c.c. alcohol, then introduce 10 c.c. potassium iodide (10 per cent.), and lastly 10 c.c. diluted sulphuric acid (10 per cent.), added in portions to prevent too violent liberation of gas and consequent pressure which might result in some gas escaping through the funnel. (The alcohol is used as stated to rinse in the "nitre" and thus prevent liberation of gas which always takes place when ethyl nitrite comes in contact with water or aqueous solutions; if such a decomposition takes place above the glass plug the gas escapes into the air and is lost in the assay.) Mix the reagents first by gentle agitation, and after evolution of gas ceases by more vigorous agitation; allow to stand ten to fifteen minutes, lift the syphon-tube from the graduated cylinder and read the volume of displaced fluid; subtract from this the volume of the added reagents to obtain the volume of nitrogen dioxide from the sweet spirit of nitre; divide the volume of gas by that of the nitre used to obtain the volumes of gas from one volume of spirit of nitrous ether (eleven volumes at or near 25° C., U.S.P.).

Of the various factors which influence the volumes of gases, as temperature, barometric pressure, solubility and tension of the aqueous vapor, the last three are disregarded, but for temperature the U.S.P. gives the value, in terms of amyl, ethyl and sodium nitrites, of 1 c.c. gas at 0° and 25° C., besides a table, by which corrections can be made from 0° to 40° C.

ESTIMATION OF SODIUM NITRITE.

To estimate *sodium nitrite* dissolve 0.150 gm. in 5 c.c. water, introduce into the apparatus, rinse with 10 c.c. water and follow with 10 c.c. potassium iodide and 10 c.c. diluted sulphuric acid and proceed as previously described; the volume of gas from 0.150 gramme should measure not less than 50 c.c. at 15° C., or 51.7 c.c. at 25° C. (97.6 per cent. pure NaNO_2 U.S.P.). Repeated comparisons of the described apparatus with nitrometers have been made during the past six months in the estimation of spirit of nitrous ether and of sodium nitrite, and the uniformly agreeing results obtained by different persons warrant the recommendation as an inexpensive substitute for a nitrometer; the only advantage possessed by the latter depends upon its graduation.

ESTIMATION OF UREA.

For the estimation of urea there are needed one $\frac{1}{8}$ -ounce homeo vial and an extra 4-ounce saltmouth bottle with a doubly perforated rubber stopper through which pass a small straight glass tube with a small section of rubber tubing closed by a piece of glass rod and a small piece of glass tubing bent at right angles and connected with a 6-inch section of small rubber tubing. The funnel and rubber tubing with the glass plug are disconnected from the apparatus used for the nitrites and the two 4-ounce bottles connected with the rubber tubing as shown in *Fig. 2*.

Place 40 c.c. Labarraque's solution in the extra bottle *G*, which is used as the generator; measure 4 c.c. urine into the homeo and carefully lower this into the generator so that the two liquids do not

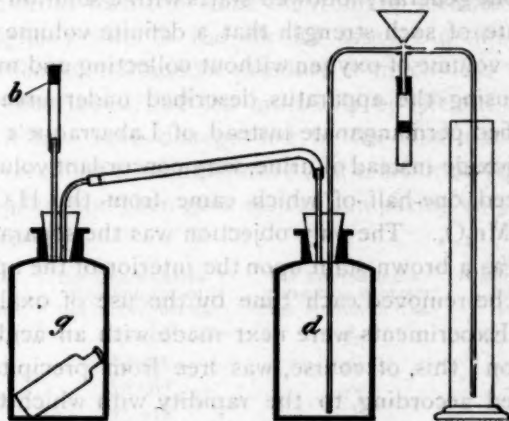


FIG. 2.—Apparatus for Estimation of Urea.

mix. Fill the other 4-ounce bottle *D* with water, insert stopper and place syphon-tube in a vessel containing water; now remove glass rod from *B* and by suction fill syphon-tube and water bottle perfectly and again insert rod in *B*. The two bottles should be wrapped with strips of several thicknesses of paper so that in handling them the heat of the hand does not cause expansion of the air or gas; it is also convenient to have them upon a small piece of board so that they can be lifted and the syphon-tube withdrawn from or introduced into any desired vessel. Replace the vessel of water by the graduated cylinder and watch for a few moments to see if the connections are all tight, then incline *G* so that the liquids mix and

agitate; repeatedly fill and empty the homeo by proper inclination of *G*; after the evolution of gas ceases upon agitation, allow to stand ten to fifteen minutes, lift the bottles and read the volume of displaced water; the number of cubic centimetres multiplied by 0.0027 will give the urea in 4 c.c. of urine.

No correction is applied for the volume of gas being under other than normal conditions for the reason that in the decomposition of urea there is involved a loss of about 8 per cent. nitrogen and this loss is just about balanced by the effect of temperature, pressure and tension of aqueous vapor under ordinary conditions.

ESTIMATION OF HYDROGEN DIOXIDE.

The gasometric estimation of *hydrogen dioxide* is possible in two ways; the one generally followed starts with a solution of potassium permanganate of such strength that a definite volume is indicative of a definite volume of oxygen without collecting and measuring the latter. By using the apparatus described under urea, but substituting acidified permanganate instead of Labarraque's solution and hydrogen dioxide instead of urine, very concordant volumes of water were displaced, one-half of which came from the H_2O_2 , the other from the $K_2Mn_2O_8$. The only objection was the separation of manganese oxide as a brown stain upon the interior of the apparatus and which must be removed each time by the use of oxalic or sulphurous acid. Experiments were next made with an acidified bichromate solution; this, of course, was free from precipitate, but the results varied according to the rapidity with which the reagents were allowed to mix, the volume of gas often agreeing with that obtained with permanganate, but sometimes was considerably below this volume. The use of an aqueous bichromate solution, however, gave very uniform results, no matter if 0.5 per cent., 5 per cent., 10 per cent. or a saturated solution was used; the only difference noticeable was in the rapidity of the reaction, this increasing with the stronger solutions. Upon mixing the dioxide with the bichromate there is formed a deep blue coloration, changing through a violet to a brown, and finally into the original orange color; the bichromate is, therefore, only temporarily oxidized to perchromic acid or a perchromate, and this in turn is reduced again to the condition of bichromate. The volume of gas therefore comes only from the dioxide. The operation is effected as follows: Place 20 c.c. saturated bichro-

mate of potassium solution in *G* and 2 c.c. or 4 c.c. of hydrogen dioxide in the homeo; fill *D* and the syphon-tube as previously described and proceed. The complete decomposition does not take more than two or three minutes, and has been complete in one minute. It is possible to use the bichromate solution over and over again; simply remove the homeo, wash this, charge with dioxide and proceed again. Divide the volume of the displaced water by the volume of the dioxide used for the volume strength of the dioxide. In determining the strength of the dioxide by the U.S.P. assay process and comparing it with the one just described, it was found that the latter gave high results, due particularly to effect of temperature and aqueous tension; the solubility of oxygen cannot be of much consequence, or results obtained by conducting two assays one after the other with the same bichromate solution should give somewhat higher results in the second assay, but this was not the case. The effect of barometric pressure is much less than that of the two first mentioned, and can ordinarily be left out of consideration just as it has been disregarded in the Pharmacopœia. The following corrections for temperature and tension of aqueous vapor are easily applied, and then give results comparing very closely with the U.S.P. process:

Temperature.	For Exact Correction Volume of Gas is Divided by	For Approximate Correction Subtract from Volume of Gas.	Error of Approximate Correction. Per Cent.
10° C.	1.0488	$\frac{1}{12}$	+ 0.11
15° C.	1.0719	$\frac{1}{15}$	+ 0.05
20° C.	1.0967	$\frac{1}{11}$	- 0.30
25° C.	1.1236	$\frac{1}{8}$	- 0.12
30° C.	1.1533	$\frac{1}{6}$ and add $\frac{1}{100}$	- 0.16
35° C.	1.1866	$\frac{1}{5}$ and add $\frac{1}{100}$	- 0.13
40° C.	1.2245	$\frac{1}{4}$ and add $\frac{1}{50}$	- 0.09

RESULTS OF SOME ANALYSES.

U.S.P. PROCESS.		NEW METHOD.	
Per Cent. H_2O_2 .	Volumes Oxygen.	Volumes Oxygen Found.	Approximate Correction for Nearest Temperature.
1 2.94	9.71	11. at 25° C.	9.78 at 0° C.
2 3.09	10.22	11.5 " 23° C.	10.23 " 0° C.
3 3.14	10.40	11.75 " 26° C.	10.45 " 0° C.
4 3.11	10.28	11.63 " 26° C.	10.34 " 0° C.

¹ To change percentage of hydrogen dioxide into volumes of available oxygen, divide the percentage by 0.30375 or multiply the percentage by 3.303.

To change volume of available oxygen into percentage of H_2O_2 , divide the volume by 3.303 or multiply the volume by 0.30275.

Without doubt the list of substances which can be estimated by gasometric analysis is easily extended; among these may be mentioned chlorinated lime, Labarraque's solution, barium dioxide, chlorine water, etc. For these the best conditions must be ascertained and the results compared with those obtained by volumetric processes—work which will be presented in another paper.

WHITE WAX.¹

BY HENRY C. C. MAISCH, PH.G., PH.D.

Answer to Query No. 44: Yellow and white beeswax and spermaceti. Would it not be advisable to include the requirements for the acid and saponification numbers for these substances?

During the last year three samples of white wax were submitted to me for examination in the analytical department of Messrs. Hance Brothers & White. They varied in color from a pure white to a decided yellowish tint. In the following report the samples will be referred to by numbers.

No. 1 was pure white in color and showed the specific gravity 0.9623 at 15° C.

No. 2 was of a yellowish shade and had the specific gravity 0.9545.

No. 3 was of a decided yellow tint, and showed the specific gravity 0.9432.

All three samples had a lower specific gravity than is recognized by the U.S.P., viz.: 0.965 to 0.975. The melting point was about the same for all three, Nos. 2 and 3 melting from 63.5 to 64° C. and No. 1 at 64° C. In their behavior toward concentrated sulphuric acid at 160° C. they differed to some extent. Nos. 1 and 2 turned brown, while No. 3 was blackened and evolved sulphurous acid to a considerable extent. On dilution with water no waxy body was separated, showing the absence of paraffin, which was also proven by a chemical examination.

The determination of the acid number was carried on as follows:

No. 1	3.3235 grammes.
No. 2	3.3302 "
No. 3	3.1805 "

¹ Read at the meeting of the Pennsylvania State Pharmaceutical Association, June, 1900.

were each heated with 20 c.c. alcohol, 95 per cent., and, when melted, thoroughly shaken. One cubic centimetre phenolphthalein solution was then added and the mixture titrated with an alcoholic potassium hydrate solution containing 30 grammes pure KOH in 1,000 c.c. alcohol, 95 per cent. There were required for

No. 1	2.85 c.c.
No. 2	2.9 "
No. 3	2.6 "

to bring to a faint pink, 20 c.c. more of the alcoholic potassium hydrate solution were added and the whole heated on a water-bath for fifteen minutes. The solution was then titrated back with one-half normal sulphuric acid, requiring for

No. 1	6.9 c.c.
No. 2	7.45 "
No. 3	8.65 "

To determine the titer of the alcoholic potassium hydrate solution, 25 c.c. were heated on a water-bath for fifteen minutes, phenolphthalein added and then titrated with one-half normal sulphuric acid, requiring 20 c.c., showing the presence of 22.396 milligrammes KOH in 1 c.c. of the alcoholic solution. The above results obtained with sulphuric acid expressed in quantities of alcoholic potassium hydrate solution are for

No. 1	8.625 c.c.
No. 2	9.3125 "
No. 3	10.8125 "

leaving for the combined KOH,

No. 1	14.225 c.c.
No. 2	13.5875 "
No. 3	11.7875 "

Now, calculating from these data the number of milligrammes potassium hydrate required to neutralize the free acid in 1 gramme of wax, we obtain the so-called "acid numbers," as follows:

No. 1	19.209
No. 2	19.503
No. 3	18.309

The "saponification numbers" represent the number of milligrammes of potassium hydrate required to saponify 1 gramme of wax, and are as follows:

No. 1	95.857
No. 2	91.376
No. 3	65.932

The difference between the two will give the "ester number :"

No. 1	76.646
No. 2	72.873
No. 3	47.623

Dividing the ester number by the acid number, we obtain the proportional number, which, in these cases, is,

No. 1	3.99
No. 2	3.73
No. 3	2.6

v. Hubl and Allen use the following numbers for white and yellow wax :

	White Wax Chem- ically Bleached.	Yellow Wax.
Acid number	24	20
Ester number	71	75
Saponification number	95	95
Proportional number	2.96	3.75

The question of including the acid and saponification number in the pharmacopœial description of the waxes and spermaceti I would consider as being in the right direction, but I would also include all the fat oils in this group, as here the recognition of adulteration is possibly of greater importance. Should these requirements be included in our Pharmacopœia, it would be necessary to experiment with the formulas for cerates and ointments, so as to adapt them to the increased requirements for purer crude materials.

The application of these saponification processes is not any more difficult than the volumetric examinations which have been incorporated in our present Pharmacopœia.

POWDER FOLDERS.¹

By I. M. WHITZ.

The powder folder is one of the indispensables of a well-equipped prescription counter, and should combine the following qualities in order to be a success :

¹ Read at the meeting of the Pennsylvania State Pharmaceutical Association, June, 1900.

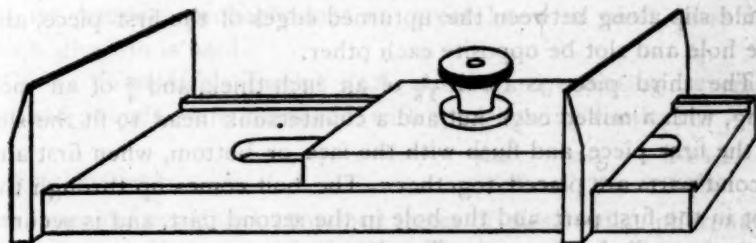
(1) It should remain firm when placed on the counter, and not be easily upset or disarranged.

(2) To be simple of construction in order to insure cheapness, and easy of manipulation.

(3) To be easily changed to suit the various sized powder boxes, and to remain as arranged until changed by operator.

It is true we have several powder folders already upon the market, such as the expanding, cylinder and saw-buck. Besides these, many pharmacists have strips of tin with the ends bent up at right angles. This requires a different tin for each size of powder box used. Other pharmacists use the part of the powder box used to hold the powders after they have been folded and are ready to be dispensed.

The saw-buck folder seems to be the best of them all, and yet has all the objections mentioned above, and to add to these, there



A New Powder Folder.

is no way to fasten it to a given size so it cannot slip. We have an occurrence in our mind, which occurred in one of the leading pharmacies of this State, in which one of the clerks was folding powders. The party was waiting for the medicine. The prescription was for twenty powders. The clerk in his quick movements caught his coat sleeve on the old saw-buck, and away it went. He laid down his spatula and powder, reset the folder in a few minutes, and had all folded but the last powder, which he was just placing on the buck, when it slipped, and the powder was on the counter. He muttered something in a low tone of voice, and the clerk who was beside him said, "Frank! don't you think you had better see the priest?"

After this experience came under my observation, I looked up the powder folders then on the market. All had the same objections

mentioned. That evening, after my day's work was over, I sat down, took a cigar box, pocket knife, hammer, and a few small nails. I cut out my idea of a powder folder piece by piece, and nailed them together, and the next day at noon took it to a machine shop and had it made.

It consisted of two small pieces of brass and a small bolt, with a milled edge nut so that it could be easily turned with thumb and finger. The first piece is $4\frac{1}{2}$ inches long, and $\frac{3}{16}$ of an inch thick, with the edges turned up $\frac{1}{16}$ of an inch. The end is turned up at right angles $1\frac{1}{8}$ inches, and is two inches wide. In the long flat part there is a slot $\frac{3}{16}$ of an inch wide on top, $1\frac{1}{4}$ inches on the under side, and $3\frac{1}{2}$ inches long.

The second piece is $1\frac{3}{4}$ inches long, $1\frac{1}{4}$ inches wide, and $\frac{1}{4}$ of an inch thick, with a $\frac{3}{16}$ -inch hole in it. The end is turned up $1\frac{1}{8}$ inches, is $\frac{1}{8}$ of an inch thick, and 2 inches long. When placed together with upturned ends opposite each other, the second piece could slip along between the upturned edges of the first piece, and the hole and slot be opposite each other.

The third piece is a bolt $\frac{3}{16}$ of an inch thick, and $\frac{3}{4}$ of an inch long, with a milled edge nut and a countersunk head to fit the slot in the first piece, and flush with the face or bottom, when first and second parts are placed together. The bolt comes up through the slot in the first part and the hole in the second part, and is secured with the milled edge nut. To change from one size to another, simply loosen the nut and move the upturned ends together or apart as you may desire; give the nut a turn to tighten it, and your powder folder cannot slip.

This folder will sit solid on the counter, and, being low and having a broad base, will not tip over, and will never allow the ends to move unless the nut is first loosened. On account of the simplicity of the folder and ease of manipulation and cheapness of construction, it should commend itself to every pharmacist who takes a pride in his profession, and labors for the good of his fellow-men.

In conclusion I wish to say that a drawing accompanies this description, and further that it is not patented. Any one is at liberty to make one, or have one made for his own pharmacy.

LABORATORY NOTES.¹

BY CHARLES H. LA WALL AND ROBT. C. PURSEL.

The following analytical notes have been obtained during the past year in the practical examination of the substances under consideration:

Glycerin.—Ten (10) samples of glycerin, representing over 150,000 pounds, were examined, with the following results:

	Min.	Max.	Average.
Specific Gravity	1'2535	1'2610	1'2572

The samples in every case complied with all but one of the U.S.P. requirements. The test for fatty acids which is contained in the U.S.P. is either too rigid or the manufacturers of glycerin are careless in its purification, for every sample developed a distinctly acidulous odor when heated with dilute sulphuric acid as required by the U.S.P. To free the glycerin from this accompanying trace of fatty acid would, doubtless, increase its cost to the consumer, and its presence probably does no great harm in most cases in which glycerin is used.

Carbon Disulphide.—Twelve (12) samples, representing several hundred pounds, were examined, with the following results:

	Min.	Max.	Average.
Specific Gravity	1'2608	1'2779	1'2652

All samples examined contained traces of dissolved sulphur, and a few showed the presence of sulphur dioxide. In this case, as in the case of glycerin, the further purification of the article would, doubtless, increase its cost without any material advantage.

Carthagera Ipecac.—About two years ago the scarcity of Rio Ipecac led to the importation in a small way of Carthagera Ipecac for trial by manufacturers.

The United States custom authorities attempted to prevent the importation of the Carthagera variety on the grounds that it was not the official drug, and would be used as an adulterant. Upon making an appeal and proving the identity of the species by referring to the botanical authorities, and also showing that its alkaloidal content was equal to, if not higher than, the Rio variety, its importation was allowed, and, since that time, many thousands of

¹ Read at the meeting of the Pennsylvania State Pharmaceutical Association, June, 1900.

pounds have entered the American market. The assay of about twenty (20) consignments, representing about 3,000 pounds, showed the following results :

	Total Alkaloids, Moist. Per Cent.	Moisture. Per Cent.	Total Alkaloids, Dry. Representing the Powdered Drug. Per Cent.
Min.	1'85	3'18	1'92
Max.	2'29	4'40	2'40
Average	2'03	3'87	2'11

The figures show the Carthagena root to be richer in total alkaloids than the Rio Ipecac, but no investigation has been made recently to determine the proportions of the several alkaloids in order to determine whether the two varieties agree in this respect.

Indigo.—Several samples of Indigo came up for examination, of which the *Bengal* variety was far superior to the *Madras*, as the following results indicate :

	Per Cent.
Bengal Indigo, Ash	8'57
Madras " No. 1, Ash	75'00
" " No. 2, Ash	69'09

Crocus.—A number of samples of Spanish Saffron were examined, with the following results :

	Min.	Max.	Average.
Nine (9) samples, per cent. of ash	4'57	6'83	5'80

Only one sample contained a preponderance of the yellow styles of the flower, indicating sophistication or careless collection.

Honey.—The examination of a number of samples of Honey, representing several thousand pounds, showed this product to conform to the U.S.P. requirements in every respect, and the polariscope test also indicated the absence of adulteration. The results of the examination of ten (10) samples showed the specific gravity to vary from 1'4277 to 1'4904, with an average ash content of 0'09 per cent.

Podophyllum Resin.—A sample of Resin of Podophyllum, which was recently offered at a very low price, was examined, and found to be almost entirely insoluble in both ether and alcohol, and to possess the characteristics of the powdered drug instead of the resin.

Aloin.—A sample of aloin from the same source as the podophyllum resin had a melting point of 82'2° C., and its behavior to solvents and microscopic appearance indicated that it was simply powdered aloes.

Barium Dioxide.—This chemical, which is used in the manufacture of hydrogen peroxide, is imported from Germany. Of fifteen (15) casks examined, five (5) were below the U.S.P. requirements, averaging 72.76 per cent. BaO_2 (U.S.P., 80 per cent.).

Great difficulty was also experienced in properly hydrating this product, and the hydrogen peroxide made from it was below the standard strength in most cases. The other ten (10) casks averaged 86.09 per cent. BaO_2 , and were perfectly satisfactory, both as regards hydration and strength of the resulting product.

RECENT LITERATURE RELATING TO PHARMACY.

A STUDY OF VANILLA.

A recent German governmental publication contains a paper on vanilla, by W. Busse (abstract in *Ap. Zeit.*, 1898, 894). It begins with the history of the drug and then emphasizes the success of its culture in German Africa. An account of the harvesting of the bean then follows, which, beside describing the usual fermentation (Mexican) process, mentions a second method of preparation—dipping in hot water, drying in sun and oiling.

After reciting the several commercial varieties, ranging in value from the Mexican to the Tahiti (which contains piperonal as well as vanillin), the writer reports a careful study of the anatomy of the fruit, of which the most portion relates to the oil-secreting papilla on the interior.

On the chemistry of the drug, the writer particularly emphasizes the fact that vanillin strength is not the sole criterion of value. He suggests as a vanillin assay, extraction of the fruit with ether, removal of vanillin from the solution by agitation with sodium bisulphite solution, separation of the vanillin from this by treatment with sulphuric acid, evaporation of the developed sulphurous oxide and extraction of the freed vanillin with ether. H. V. ARNY.

ANALYTICAL VALUE OF VITALI'S REACTION.

For identification of atropine, two striking tests are known. The first is the floral aroma, produced on oxidizing the alkaloid or its salts; while the second—the so-called Vitali's reaction—is the violet-blue color, produced when the alkaloid is evaporated to dryness

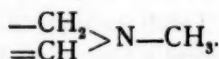
with fuming nitric acid, and the residue treated with potassium hydrate.

The theoretical value of these reactions was the subject of a paper read by Kunz Krause before the "Deutsche Naturforscher Versammlung." He applied the second reaction to seventeen natural alkaloids and to five heterocyclic bases, and found, of these, only atropine and hyoscyamine gave the characteristic color. Papaverine, it is true, does give a color; but it is only a transient red. Hence, the reaction is certainly of great value for toxicological purposes.

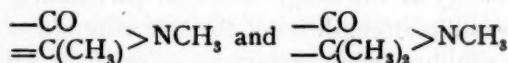
In his investigation of Vitali's reaction, the writer discovered an interesting phenomenon—that when the alkaline and colored atropine residue was covered with alcohol and allowed to stand, the unmistakable odor of methyl carbylamine, CH_3NC , was developed.

The same odor was detected after similar treatment of eight of the seventeen alkaloids, hyoscyamine, hydrastine, hydrastinine, morphine, codeine, narcotine, nicotine and cocaine. Under similar conditions, papaverine develops a musk odor, and veratrine first smells of coniine and afterwards of new-mown hay.

A careful comparison of the accepted structural formulæ of the nine alkaloids, giving the carbylamine odor, was next made, and it was found that the point of similarity was that each alkaloid contained the group

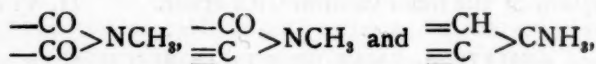


Of the synthetic bases, two gave the carbylamine odor and these contained the groups



respectively.

On the other hand, caffeine, which contains three similar methylamide groups,



does not give the reaction.

The deductions of the author are that a carbylamine odor developed in Vitali's reaction indicates one of the three groupings first mentioned—a most valuable diagnosis, if true. H. V. A.

EDITORIAL.

STATE PHARMACEUTICAL ASSOCIATIONS.

During June and July two-thirds of all the State pharmaceutical associations hold their annual meetings. The places of meeting are generally, as will be seen from the reports of the various associations, in another part of this JOURNAL, at some recreative resort rather than in the larger cities. The advantages of each of these places for the holding of conventions have already been alluded to in an editorial in this JOURNAL (1898, p. 453). At that time some of the benefits of conventions were also given. There was one benefit, however, which was not referred to, but which really is one of the most important that accrue from these annual meetings. The benefit which most of us see in these conventions, with their accompanying pleasures, is one which is individual or extends at the most to the family; but there is really a greater benefit to the professions, sciences and arts, whose members are thus brought together. It is true that the members do have a good time and return home with renewed vigor for the work to be done; but this is probably one of the least benefits from these gatherings. The greatest benefit possibly accrues from the organization itself to the profession, science and art which it represents. The power for good here is apparently seldom referred to or realized to its greatest extent. President Dohme, in his address to the Maryland Pharmaceutical Association, showed the great possibilities of organization. "If," said he, "we could only get our membership up to a fair proportion of the total number of pharmacists in the State, we would have a much better opportunity and standing before the Legislature, when we appear before it in behalf of a bill we are offering." If each pharmacist would recognize his obligations to his profession by becoming affiliated as a member with his State organization, there would be nothing that would be denied him by legislature and there is no question but that his importunities would be heard. This is an age of organization and every man counts in the work, be it in politics or in the professions. If appeals and resolutions to legislatures were backed up by organizations upon whose rolls are names of all the pharmacists of the State, there would be fewer difficulties in the way of reforms. Every pharmacist should appreciate this phase of the benefits of organizations, and even though he cannot attend the meetings, his name on the roll of the State

organization would mean that he has a voice in its deliberations. His influence as a member merely will do much good ultimately to his profession, as his attendance at the meetings would do him good personally.

It might be well at this time to call attention to one reason why the work of the various associations is not a source of more fruitful results. Dr. Dohme, in his address, touches upon but one phase of the efficiency of the work of organization. While it is true that membership is a potent factor in legislation, it must not be forgotten that education should go hand-in-hand with legislation. If the secretaries of all the State pharmaceutical associations would, like the Secretaries of the Missouri, Ohio and South Carolina, and possibly some other Pharmaceutical Associations, send out condensed reports of their annual meetings to all the different pharmaceutical journals, the influence and efforts of the association would be felt and appreciated by a large number of pharmacists, many of whom are members of other State organizations, and also by those who are not members of any organization. Such steps would tend to bring every State association into prominence and enable it to wield an influence for good, as the Missouri Association is doing. (See Review of Proceedings of Missouri Pharmaceutical Association, this JOURNAL, 1899, p. 293.) It must also be said that some such action is necessary in order not to make its members, and particularly its contributors, ludicrous in the eyes of the readers of the pharmaceutical press. The names of members, as frequently reported, are incorrect, the titles of papers are not infrequently wrong, and the whole proceedings as reported are made to appear, therefore, more or less ludicrous.

PENNSYLVANIA PHARMACEUTICAL ASSOCIATION.

The twenty-third annual meeting of the Pennsylvania Pharmaceutical Association was held at Ebensburg, Pa., from June 26th to 29th. After the usual welcome, the President, C. N. Boyd, Butler, Pa., made the annual address. He congratulated the Association on the improvement of trade conditions. In some places the volume of business has increased; in others former prices have been restored. The druggists of the country begin to see the benefit that can be brought about by organization, and only by united action can their business be improved.

The third annual meeting of the Pure Food and Drug Congress was attended by a committee from this Association. They took an active part in its deliberations and assisted in securing the recommendation of a bill that will secure the objects sought after.

The preparations of the National Formulary are deserving the attention of the members of this Association. The attention of physicians should be called to them as preparations of known merit, to replace many preparations of doubtful composition now sold.

The work of the National Association of Retail Druggists was commended and the Association urged to send delegates to the next annual meeting in Detroit. The injustice of the War Revenue Act as applied to druggists was referred to, and the hope expressed that the government will do something to lighten the burden now imposed upon them.

The high standing of our pharmaceutical colleges, which are not surpassed by any others, was asserted and the advantage of a college education pointed out as a prerequisite for examination before the Examining Board.

The reading of the drug journals was recommended as an aid to a pharmaceutical education.

After approving the objects of the American Pharmaceutical Association and expressing his satisfaction on account of the pleasant relations existing between this Association and the State Medical Society, the remaining portion of the address was taken up in the consideration of a large number of replies he had received from members of the Association in answer to a series of questions relating to the Association and its work.

Three district meetings of the Association—eastern, middle and western—were recommended; also, that certificates of membership be furnished without charge. The address concluded with a reference to the great advancement made in pharmacy during the century now closing.

The reports of the officers and various committees, as well as delegates to various conventions, were read. Resolutions were offered in favor of the reappointment of C. T. George as member of the State Pharmaceutical Examining Board, for making Professor Ryan an honorary member of the Association, and for the advancement of hospital stewards in the Pennsylvania State Guard, etc.

The following officers were elected for the ensuing year: Presi-

dent, S. K. Hammond, West Chester; First Vice-President, C. B. Lowe, Philadelphia; Second Vice-President, Charles Griffith, Johnstown; Secretary, Jacob A. Miller, Harrisburg; Treasurer, J. L. Lemberger, Lebanon. Executive Committee—Cyrus Jacoby, South Bethlehem; S. W. Heinitsh, Lancaster, and George A. Gorgas, Harrisburg. Local Secretary, D. J. Thomas, Scranton.

The next meeting will be held at Hotel Oneonta, on Harvey's Lake, near Wilkesbarre, June 18, 1901.

PAPERS AND QUERIES.

The number of papers presented was about as usual. F. W. E. Stedem, the Chairman of the Committee, was commended by the Association for the success of this feature of the meeting. They were as follows:

A COMMERCIAL TRAINING COURSE IN COLLEGES OF PHARMACY.

By Joseph P. Remington.

This is printed in full on page 361 of this JOURNAL.

ADORNMENT OF DRUG STORES WITH PLANTS.

By Henry Kraemer.

This paper may be regarded as an answer to the query proposed last year, which read: "Wanted, a paper on the use of plants for adorning drug-store windows, specifying the best varieties." The author divided the plants to be used for this purpose into the following groups:

I. POTTED PLANTS, which may include (a) plants in pots (proper); (b) plants for hanging baskets; (c) bulbous plants for vases, etc.

II. AQUARIA.

GASOMETRIC ANALYSIS.

By Frank X. Moerk.

This is printed in full on p. 366 of this JOURNAL.

WHITE WAX.

By Henry C. C. Maisch.

This is an answer to the query "Would it not be advisable to include the requirements for the acid and saponification numbers for yellow and white beeswax and spermaceti?" This paper is printed on p. 372 of this JOURNAL.

POWDER FOLDERS.

By I. M. Weills.

A description of an original invention by the author (see p. 374 of this JOURNAL).

LABORATORY NOTES.

By Charles H. La Wall and Robert C. Pursel.

These analytical notes are published on p. 377 of this JOURNAL.

FORMULÆ FOR ZINC OINTMENT.

D. J. Thomas presented the following notes :

Ointment of zinc oxide, prepared according to the process of the U.S.P. of 1890, will, with a slight modification, yield a very satisfactory product. Care should be taken in the selection of the materials used in the preparation of the ointment, and the finished product should always be kept in a cool place and never allowed to be subjected to a temperature sufficiently high to liquefy the ointment. Oxide of zinc that will stand the pharmacopœial tests, showing an absence of contaminating salts, should only be used, but still greater caution should be exercised in the selection of the lard for benzoination. Nothing but dehydrated lard should be used, as the presence of water is doubtless the cause of the granulation or decomposition of the ointment. The Pharmacopœia suggests in the preparation of benzoinated lard the addition of 5 per cent., or more if necessary, of white wax. To stand the extreme heat of summer, it will be found necessary to increase the quantity of white wax to 10 per cent. In winter, 5 per cent. will be sufficient. The process used by the writer, and one which gives satisfactory results, is as follows:

Take of Zinc Oxide U.S.P.	200 grammes.
Dehydrated Benzoinated Lard	800 "

To make	1,000 "
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Sift the zinc oxide through a No. 20 sieve into a porcelain or wedgewood mortar. By means of a water-bath heat the benzoinated lard in a porcelain capsule, and while in a melted state thoroughly incorporate it with the zinc oxide. Transfer the whole to the capsule, reheat it on the water-bath, and when sufficiently

melted, strain through moderately fine gauze or cheese cloth, after which it should be stirred constantly until cold.

John F. Patton presented the following notes:

NO. 31. FORMULA FOR ZINC OINTMENT.

It is presumed this means oxide of zinc ointment.

The first requisite is a good article of oxide of zinc.

We have always found "Hubbuck's" English oxide of zinc to meet all the requirements of an excellent article.

Our experience with the twenty-three ointments of the Pharmacopœia is in the small quantity at present prescribed by physicians.

The ointment of the oxide of zinc is most frequently dispensed. Then comes tar ointment and the ointment of the nitrate of mercury.

The first, made by the following formula, yields a product that leaves nothing to be desired.

Triturate $8\frac{3}{4}$ ounces of Hubbuck's oxide of zinc with 6 ounces olive oil to a smooth paste.

Have your mortar of ample capacity and well warmed.

Then introduce a mixture of $6\frac{5}{8}$ ounces white wax and $33\frac{1}{2}$ ounces washed lard, previously melted over a water-bath.

Stir constantly until cool, finally add $1\frac{1}{2}$ ounces of tincture benzoin, prepared by the following formula:

Gum Benzoin in tears	2 ounces.
Ether	4 "
Macerate until dissolved, filter and add:	
Castor Oil	2 "

For benzoinating lard, this tincture in proportion of $\frac{1}{2}$ ounce for each pound of the ointment will be found to answer the purpose admirably.

Whilst on the subject of ointments, it will not be amiss to discuss the merits of an ointment which, if made according to the direction laid down in the U.S.P. of 1870 and 1880, gave the manufacturer no end of trouble, from the fact that it had a disposition to assume a granular consistency on being kept for any length of time. I refer to Ungt. Hydrarg. Nit.

This can be obviated and a most satisfactory ointment produced by the addition of petrolatum to the extent of one-third of the amount of lard required.

A very satisfactory cold cream of the right consistency and of unexceptionable keeping quality results from employing the following formula :

White Wax	1 ½ ounces.
Spermaceti	1 ½ "
Oil Sweet Almonds	4 "
Fuse over a water-bath, to which add :	
Powdered Borax	½ drachm.
Rose Water	5 drachms.
Oil Lemon	20 drops.
Oil Rose	10 "

Dissolve the Borax in the Rose Water with the aid of heat; add whilst hot; add to the melted wax and spermaceti, and lastly, add the perfume, and stir until cold.

CONDENSED MILK.

By Frederic E. Niece.

The author made an examination of widely-known domestic condensed milks. The methods of analysis employed were those recognized by the United States Agricultural Chemists. In summing up the results the author says the presence of deleterious substances was not fully established, and that he was unable to detect any of the usual suspected adulterants, applying as he did the most sensitive and recognized tests.

ANTI-NOSTRUM PRESCRIPTIONS.

By Louis Emanuel.

The author called attention to the fact that a number of physicians, owing to their aversion to presenting proprietary preparations, were writing prescriptions which contained the ingredients of some of these well-known preparations, and that it should be the policy of the pharmacist to encourage this effort with all the cunning, art and diplomacy that is possible to command, in order that a charge of incompetency may not be fostered against him. The author gave a number of illustrations.

SHOULD THE PHARMACIST WHO IS SKILLED IN THE RECOGNITION OF BACILLI, AND THE ANALYSIS OF URINE, ETC., OFFER HIS SERVICES FREE TO PHYSICIANS, OR SHOULD HE MAKE A CHARGE FOR THE SAME?

By Frederick T. Gordon.

On the basis that "the laborer is worthy of his hire," the author made a plea for the maintenance of the professional self-respect of pharmacists.

THE COMMERCIAL SIDE OF PHARMACY.

By Charles Leedom.

The author considered the subject of the cutting of prices of patented and proprietary medicines as well as every popular selling drug, and suggested some ways of remedying the evil.

SHALL THE PHARMACEUTICAL PRESS BE THROTTLED?

By D. J. Thomas.

An examination of 1,000 consecutive prescriptions showed that 400 were for proprietary products. This means, according to the author, the paying of a heavy tribute to the patentees or proprietors of pharmaceutical preparations, and in consequence a falling off in the use of the Pharmacopœial and National Formulary products not under the proprietary or patented schedule. The author suggested the distribution on the part of the pharmacist, of literature pertaining to, and samples of, the products of the Pharmacopœia and National Formulary and other preparations.

WHAT IS THE BEST COURSE TO PURSUE TO REPRESS THE SALE OF PROPRIETARY ARTICLES THAT YIELD NO PROFIT?

By John F. Patton.

The answer given is, "don't sell them," and enter into competition with articles of like character of your own manufacture.

BOOKKEEPING FOR DRUGGISTS.

By Charles H. La Wall.

The author estimates that less than 10 per cent. of the retail druggists in the larger cities keep a systematic record of their business transactions. The writer gives an outline of a simple system of bookkeeping for the use of druggists.

TOPOGRAPHY, FLORA AND FAUNA OF SOUTH AFRICA.

By C. B. Lowe.

This was an illustrated lecture on the physical geography of South Africa.

MISSOURI PHARMACEUTICAL ASSOCIATION.

The Missouri Pharmaceutical Association held its twenty-second annual meeting at Pertle Springs, Warrensburg, June 12th to 15th, inclusive. The attendance was very large.

President H. M. Pettit, of Carrollton, delivered an exceptionally able address. He reviewed the trade conditions, legislative matters, and the recent U.S.P. and A.Ph.A. conventions. Special attention was called to the coming meeting of the A.Ph.A. in St. Louis, September, 1901. Tributes were paid to the deceased members, and special mention made of the late Messrs. F. W. Sennewald and W. E. Barth. The good work of the N.A.R.D. was heartily commended. Treasurer Wm. Mittelbach, of Boonville, reported a balance of over \$200 on hand, the total expenses for the past year being \$622.12. The total list of members was 377, many of whom are to be dropped for non-payment of dues. Secretary H. M. Whelpley, of St. Louis, presented his report covering the work in that office for the past year. On account of the financial condition of the Association and the urgent desirability of meeting the N.A.R.D. assessment, the Secretary recommended that his salary be reduced from \$100 to \$50 per year, which, after considerable discussion, was adopted. Francis Hemm, Chairman of the Committee on Papers and Queries, presented the following list of papers, which were read and discussed:

(1) "The Artificial Manufacture of Diamonds," J. F. Llewellyn, Mexico.

(2) "A Few Notes on the Microscope in the Drug Store," H. M. Whelpley, St. Louis.

(3) "Practical Pharmaceutical Notes and Observations," Francis Hemm, St. Louis.

(4) "Mescal Buttons," J. F. Llewellyn, Mexico.

(5) "Photography in Pharmacy," Ambrose Mueller, Webster Groves.

(6) "Points on the Assay Processes of the U. S. Pharmacopœia," Francis Hemm, St. Louis.

(7) "Comments on the Revision of the U. S. Pharmacopœia," Wm. Mittelbach, Boonville.

(8) "Hydrargyrum cum Cretæ," Carl Hinrichs, St. Louis.

Mr. F. R. Scharlach, of Moberly, Chairman of Committee on Deceased Members, reported six deaths during the past year. This was followed by a memorial session of the convention. The pharmacists in the United States employ were given attention, and resolutions adopted, copies of which will be forwarded to the Government officials. A sample of the new Epitome of the National

Formulary, just published by the A.Ph.A., was exhibited and discussed. The Association urged its members to procure copies for distribution among physicians. Otto F. Claus, Chairman of Committee on Membership, presented seventeen applications. C. F. G. Meyer, of St. Louis, reported as a delegate to the Pure Food and Drug Congress. The Association reaffirmed its position in favor of pure food and drugs. The N.A.R.D. was represented by the Chairman of the Executive Committee, Mr. F. E. Holliday, who addressed the Association, which had previously voted to pay its assessment of 50 cents per member. The following officers were elected for the coming year: President, Paul L. Hess, Kansas City; Treasurer, Wm. Mittelbach, Boonville; Secretary, H. M. Whelpley, St. Louis; Assistant Secretary, Ambrose Mueller, Webster Groves; Local Secretary, J. V. Murray, Warrensburg; Council, H. M. Pettit, Carrollton, Chairman; R. L. Hope, Centralia, Vice-Chairman; Chas. L. Wright Webb City, Secretary; J. M. Love, Kansas City; A. Brandenberger, Jefferson City.

A. T. Fleischmann, Secretary of the Board of Pharmacy, presented his annual report, which showed that that body had held five meetings during the past year, at which 246 candidates had been examined, of which 109 were registered. The Board received \$650 from all sources during the year, which was used in meeting its expenses.

R. L. Hope, of Centralia, Chairman of the Committee on Exhibits, reported the names of fourteen exhibitors. The Hollywood Cash Register Company, of Dayton, O., donated the Association a \$100 register, which was quickly sold to one of the members and the proceeds turned into the treasury.

Wm. Mittelbach, of Boonville, Chairman of the Committee on U. S. Pharmacopœia, made a report which, in connection with other papers on the Pharmacopœia, was discussed and referred to Dr. Chas. Rice, Chairman of the Committee on Revision. A. T. Fleischmann, Chairman of the Committee on Legislation, asked the Association for instructions. It was decided to make no effort to amend the present pharmacy law. The Query Box was opened, and a number of practical questions discussed. The Committee on Time and Place of Meeting, through its Chairman, J. M. Love, of Kansas City, reported in favor of Pertle Springs, the time to be in the month of June, but the exact date to be decided by the Council. After

the installation of officers, President Hess announced the following chairmen of the different committees: Membership and Attendance, F. R. Scharlach, Moberly; Papers and Queries, Francis Hemm, St. Louis; Legislation, J. M. Love, Kansas City; National Formulary, F. L. Crampton, Kansas City; Trade Interests, E. G. Schroers, St. Joseph; U.S.P., J. F. Llewellyn, Mexico; Exhibits, Henry Riddel, Kansas City; Deceased Members, P. H. Franklin, Moberly; Drug Adulterations, Ambrose Mueller, Webster Groves; Transportation, H. W. Servant, Sedalia.

MARYLAND PHARMACEUTICAL ASSOCIATION.

The eighteenth annual meeting of the Maryland Pharmaceutical Association was held at Hagerstown, June 19-22, 1900.

The sessions were opened with an address of welcome by Mayor E. M. Schindel, a prominent druggist of Hagerstown, to which Henry P. Hynson replied and said, among other things, that the State of Maryland had not shown appreciation of pharmacy by throwing around it laws for its protection, such as had been enacted in other States. After the transaction of routine business, A. R. L. Dohme, the retiring President, read his annual report.

He said the membership had been increased from 132 to 167, and that the unsuccessful efforts to secure a pharmacy law for Maryland was not work done in vain, and its good effects would be shown in the future.

Concerning the question of further increasing the membership of the Association, Dr. Dohme said: "If we could only get our membership up to a fair proportion of the total number of pharmacists in the State, we would have a much better opportunity and standing before the Legislature, when we appear before it in behalf of a bill we are offering. During the past year an effort was made by the local branch of the N.A.R.D. to bring about more friendly relations between the retail and wholesale druggists of Baltimore. It was not entirely successful. The so-called card system of the N.A.R.D. has been inaugurated in Baltimore, but also without success, and justly so. Until all the jobbers of Baltimore and the neighboring large cities can be brought into line, and until at least 90 per cent. of the retailers can be induced to agree to the system, it is unreasonable to expect either side to subscribe to it. Until the organization of the N.A.R.D.

becomes more general all over the land, it is useless to expect it to succeed in a large city. It is absolutely impossible to expect to attain a perfect system of checking the cutting of prices. * * * I believe that there are to-day among the professed friends of the rebate system in the wholesale and retail drug trade, and especially among those who are working for its success, and condemn its violation in speech and in print, persons and firms who are making considerable money by surreptitiously supplying cutters all over the land with goods of all descriptions. This is nefarious, but how it can be prevented by law is beyond my ability to suggest."

He advised a continuation of the agitation in favor of repealing the war-revenue law and commended the action taken by the National Pure Food and Drug Congress. He also suggested a change in the manner of selecting meeting places, that instead of going from place to place it would be better to select Ocean City for the Eastern shore and Blue Mountain House for the Western shore, meeting at these places alternately.

Secretary Charles H. Ware's report stated that the Association had 153 members, with a number of applications to be acted upon. An interesting report on trade interests was submitted by H. P. Hynson. He recommended the formation of a commercial league, to be a part of the Maryland Pharmaceutical Association. Mr. Hynson said there were three branches of the trade represented in the Association—the retailer, wholesaler and manufacturer—and argued that each of these three branches should be brought into closer touch with every other branch through the proposed committee, with the result that a larger measure of co-operation could be secured. The matter was referred to the Committee on Laws.

The report of the Committee on Adulterations was made through Dr. Daniel Base, who submitted several samples of adulterated drugs, after which Dr. Church, of Church Falls, Va., was introduced and made an address on the Virginia Pharmaceutical Association.

Mr. Hynson, acting for a committee of six, three members representing the Maryland Medical and Chirurgical Faculty and three the Maryland Pharmaceutical Association, submitted a set of rules to govern the relations between the two professions. They provided that pharmacists shall refuse to prescribe for customers, except in emergency cases, and that physicians shall carry emergency remedies only; that substitution shall not be resorted to; that physicians

shall regulate their charges and pharmacists shall do likewise; that pharmacists shall not refill prescriptions when directed by physicians not to do so; that druggists shall see physicians before filling prescriptions supposed to contain errors, and that pharmacists shall not disclose the contents of prescriptions to customers. These regulations were approved, the only one rejected being the requirement that druggists need not put caution labels on bottles unless directed to do so by physicians.

Louis Schulze read a paper on free dispensaries. He said that these institutions were abused by the well-to-do, and recommended the appointment of State physicians to visit the indigent sick. This paper was referred to the joint Committee of Physicians and Pharmacists. J. C. Muth, of Muth Bros. & Co., reported that statistics gathered in the State showed that the sale of patent medicines has undergone a slight decrease.

On Friday the proceedings opened with the reading of the report from the Committee on Pure Food and Drugs, which encouraged support of the efforts to secure national legislation on the subject. Dr. Dohme read a paper on "What Have Been the Causes Preventing the Enactment of a Pharmacy Law for Maryland." "Are Headache Remedies Containing Acetanilid Dangerous?" was a subject discussed by J. Emory Bond. It brought out some remarks by W. C. Aughinbaugh and others, who advised that these remedies be used with caution.

At the afternoon session the Committee on Trade Interests made its report. It recommended that the Maryland Association continue to support the N.A.R.D. Robert S. McKinney, Taneytown, Chairman; W. C. Powell, Snow Hill, and H. P. Hynson and J. G. Beck, Baltimore, were appointed a Board of Directors of the Retail Druggists' League, to be formed as an adjunct to the Maryland Pharmaceutical Association. Non-members as well as members of the State association may belong to the new league, which has for its object the organization of all the retail druggists in Maryland.

J. M. Kenney read a paper in reply to the query, "What is the Best Preservative for Fruit Juices?" He said that formaldehyde was as good as anything.

H. Lionel Meredith, Hagerstown, read a paper on some experiments with glucose and glycerin in syrup ferrous iodide.

The following officers were elected: President, W. E. Turner,

Cumberland; Vice-Presidents, L. H. Mobley, Hagerstown; J. F. Leary, Rock Hall; W. E. Brown, Baltimore; Secretary, Louis Schulze, Baltimore; Treasurer, William M. Fouch, Baltimore; Executive Committee, H. R. Rudy, Hagerstown, and O. C. Smith and J. Emory Bond, Baltimore.—From *Pharm. Era*, 1900, 712.

NEW JERSEY PHARMACEUTICAL ASSOCIATION.

The thirtieth annual meeting of the New Jersey Pharmaceutical Association was held at Asbury Park, May 23-24, 1900.

After an address of welcome by Hon. F. T. Appleby, the President, W. C. Alpers, then read his annual address, in which he said the business outlook was brighter than for many years past. He said he had experienced the greatest difficulty in getting members of the Association to serve on the Query Committee. To overcome this difficulty a more vigorous policy was needed. Provision should be made for this committee to send out questions early to members of the Association and to keep at it. The committee should also collect facts bearing on the progress of pharmacy, adulteration and methods of analysis for their determination, etc. He reported that the Association had to its credit \$2,300, with an annual income from dues amounting to \$375. The annual expenditures amount to \$475, and he urged greater economy in the matter of expenses.

The proposition of the Pabst Brewing Company, of Milwaukee, to allow an additional discount or rebate to associations on goods sold to their members was denounced as an "advertising scheme," and he advised the Association to authorize the return of the check sent by that corporation to the society. The work of the New Jersey Board of Pharmacy was heartily endorsed. He believed a thorough general education should be required of applicants, and the legal establishment of such educational requirements was more necessary than anything else in the development of pharmacy. He indorsed the "model law" adopted by the American Pharmaceutical Association at its last meeting, and said that the New Jersey pharmacy law came nearer to this draft than that of any other State. The recommendation that hospital stewards in the National Guard be registered pharmacists and be accorded commissions, as recently authorized in New York, he also endorsed. The Local Sec-

retary should be made an officer of the Association, and the order of business prescribed by the constitution should be changed.

In closing his address, the President recommended the Association to sever its connection with the National Association of Retail Druggists. The experiences of the past year had not verified the predictions made by the national organization. "The N.A.R.D. gives nothing but promises," he said. "It is the retailer who is called upon to make all of the sacrifices, while the jobber gets all the profits and the manufacturer risks but little." Then, too, he thought the membership of the Association in the N.A.R.D. was unconstitutional.

The address was referred to a committee consisting of Messrs. Holzhauer, Bye and Merritt.

The Secretary and Treasurer then read their annual reports, showing a net membership of 364, with a cash balance on hand of \$2,411.46. Henry A. Jorden, of Bridgeton, read his report as Secretary of the New Jersey Board of Pharmacy. The board held fifteen meetings during the year, and he was glad to report that applicants taking the examination showed better preparation for the work than ever before. Out of 107 who had taken the examination, 53 were college graduates. There were 1,539 registered pharmacists and 97 assistant pharmacists in the State.

After a Nominating Committee was appointed, the credentials of delegates from other pharmaceutical organizations were read. A motion to receive them and to grant the delegates the privilege of the floor was followed by a sharp discussion over the latter clause of the motion, and the "privileges of the floor" were not granted. It was a cold reception for the visiting delegates, and when they were asked if any of them had anything to say and the Association would listen to them, not one responded. Dr. Brundage, a delegate from Brooklyn, and also a member of the New Jersey Association, protested against this action, but his protest did no good. The opponents to granting the privileges of the floor to visiting delegates did not want the latter, among whom was Prof. W. C. Anderson, Vice-President of the N.A.R.D., to debate the plan of the national organization.

Then followed a report from the delegate to the meeting of the N.A.R.D., J. C. Gallagher, of Jersey City. Here the fight over the N.A.R.D. began again, the opposition being led by Charles Holz-

hauer, of Newark. By a vote of 22 to 14, the report was laid on the table, and another motion was passed making the question of remaining in the N.A.R.D. the first order of business for the following day.

Mr. Holzhauer read the committee's report on the President's address, and then the ball was started rolling by J. C. Gallagher, who moved "that the dues of this Association to the N.A.R.D. be paid." The resolution was violently opposed by Messrs. Holzhauer, White, Ryerson and the retiring President, W. C. Alpers, and most eloquently defended by Messrs. J. C. Gallagher and Frank O. Cole.

The resolution was lost, and by a vote of 14 to 29 the Association decided to withdraw from the National Association of Retail Druggists. It, however, passed another resolution favoring the plan of the National Association of Retail Druggists, and authorized the incoming President to appoint a committee of three members for each county to form local associations to co-operate with the national organization. The Secretary was authorized to ascertain the present indebtedness of the New Jersey Pharmaceutical Association to the N.A.R.D., and, if any such there be, the Association shall pay the amount.

The Committee on Membership reported the names of twenty-five new members. Reports from delegates to the American Pharmaceutical Association, the National Wholesale Druggists' Association, Pure Food and Drug Congress, U. S. Pharmacopœial Convention, and other associations were read and referred to the Publication Committee. A resolution, growing out of the discussion over the action of the New Jersey Board of Pharmacy in attempting to secure legislation last winter without "consulting the Association," was passed "that the Association considers it inadvisable for any of its members to attempt to introduce any legislation affecting pharmacy without the sanction of the Association."

The officers elected were: Stephen D. Woolley, Ocean Grove, President; D. L. Cameron, Rutherford, and James Foulke, Jersey City, Vice-Presidents; Frank C. Stutzlen, Elizabeth, Secretary; James C. Field, Somerville, Treasurer, and H. P. Thorn, Medford, and G. T. Fitzgeorge, Trenton, as new members of the Legislative Committee.

Executive Committee: D. L. Cameron, W. C. Alpers, Geo. H. Whipple, C. R. Priest and J. W. Merritt. Names from which to

select a member of the Board of Pharmacy, H. A. Jorden, Charles Holzhauer, C. A. Bye, W. F. Fox and R. Killgore.—*Ibid.*, 1900, p. 596.

NEW YORK STATE PHARMACEUTICAL ASSOCIATION.

The twenty-second annual meeting of the New York State Pharmaceutical Association was held at Newburgh, June 26–29, 1900.

The President in his address said that he was glad to see that fraternal feeling had wiped out petty jealousy, so that now local associations could be organized much more readily than ever before. He was pleased to see that organization was the order of the day, as druggists had been working single-handed too long. By acting together druggists would not only better their own positions, but would stand higher in the eyes of the public.

Regarding the N.A.R.D. the President said that it had done much toward establishing a better understanding between the wholesalers and manufacturers and the retailers. New York had been well represented at the Cincinnati meeting. He had attended and was very favorably impressed, and bespoke the kindly consideration of the New York State Association for this national organization. The work done by Thomas Stoddart before the Ways and Means Committee of Congress in the matter of the proposed repeal of the stamp tax law was alluded to.

Twenty years' labor of the Association in the direction of securing an all-State pharmacy law had at last shown results and the law was now on the statute books. Difference of opinion in the druggists' own ranks had prevented an earlier consummation of this desirable legislation, and when it had come it was an agreeable surprise all around. To R. K. Smither, of Buffalo, and Assemblyman Hill was due the chief credit for this statute, and he asked for it a fair trial, feeling sure that it was an improvement over the old laws. The appointment of the members of the board had been kept out of the hands of the Governor for fear that politics would creep in; he hoped that pharmacists would not disgrace the Association by infusing their politics into the board. He complimented the old State Board for the immense amount of work it had accomplished under a rather indifferent law.

About the matter of pharmaceutical education the President had

a good deal to say. He recommended that after 1905 no candidate be examined for board license who was not a graduate of a college of pharmacy. He estimated that 95 per cent. of physicians supplied 90 per cent. of their patients with medicines. This should not be so. It was the natural right of pharmacists to supply medicines and this right should be guaranteed by law.

The President recognized in travelling men a means of extending the membership of the Association. He suggested that in each town where there were five or more members, one of that number be appointed a collector of dues, and have an allowance of 10 per cent. for his trouble.

He recommended that the proceedings be made less elaborate and that the expense of publishing them be paid by the Board of Pharmacy.

It was a violation of the constitution for the time and place of meeting to be selected by anybody other than the Association itself, and Mr. Muench recommended that in future the Association fix its own time and place of meeting.

The Secretary is an *ex-officio* member of the Executive Committee, and had all the rights and privileges of such, but the President recommended that as four members might be equally divided on a question, the constitution be amended so as to state that the Secretary shall not have a vote as a member of the Committee.

In his peroration President Muench urged all the members to stand shoulder to shoulder and work unselfishly for the upbuilding of pharmacy.

The Committee on President's Address approved of the President's recommendations and remarks relative to the N.A.R.D., stamp tax, All-State Pharmacy Law, work of the old board, and that the President and Secretary be *ex-officio* members of the Executive Committee. The President's suggestion in the diploma prerequisite matter was also approved, save that the time when this should become operative should be made 1903 instead of 1905. The proposition that the newly-created State Board of Pharmacy pay for printing the proceedings of the Association was not favored.

Mr. Smither offered a resolution providing that the new Legislative Committee shall prepare for presentation at the next annual meeting the draft of a bill which shall include the diploma pre-

requisite (operative in 1905), shall require regents' examination for entrance into colleges of pharmacy, and that a method be devised for some form of State control over the standard of the colleges. The latter sections of this resolution were generally considered most important steps toward the attainment of a higher and better educational and legal pharmaceutical standard.

A resolution was adopted thanking the Governor for signing the bill increasing the rank and pay of the hospital stewards in the State militia.

G. Michaelis, of Albany, read the report of the Committee on Adulterations. The general average quality of drugs in this State was found better than heretofore and gradually improving. The report urged work to secure the passage of the Brosius Bill, as State measures were useless without Federal legislation. If the Brosius Bill passes there will be no further need for this committee in this Association. A tabular statement was given showing the character of a large number of articles examined during the past year. A large part of the report consisted of abstracts from the annual report of the chemist of the United States Department of Agriculture.

The Committee on Pharmacy and Queries announced several papers: "Prescription Incompatibilities in Every-day Practice," by W. J. Robinson, New York; "Shop Notes and Dispensing Hints," W. A. Dawson, Hempstead; a paper by C. S. Ingraham, Elmira, requesting establishment of a standing committee on formulas; "Tendencies in Pharmacy," A. B. Husted, Albany; "Botanical Nomenclature," W. A. Bryan, Brooklyn; "History of the New York State Pharmaceutical Association," C. W. Holmes, Elmira. All these papers were read by title and referred for publication.

The following officers were elected:

President, Felix Hirseman, New York; First Vice-President, Thos. Stoddart, Buffalo; Second Vice-President, J. F. Van Nort, Elmira; Third Vice-President, Clarence Miller, Newburgh; Secretary, J. B. Todd, Ithaca; Treasurer, T. W. Dalton, Syracuse; Executive Committee, J. A. Lockie, Buffalo; A. C. Searles, New York; Frank Richardson, Albany.—*Pharm. Era*, July 5, 1900; and *Drug. Circ.*, July, 1900.

ALABAMA PHARMACEUTICAL ASSOCIATION.

The nineteenth annual meeting of the Alabama Pharmaceutical Association was held at Mobile, May 15th-16th. President P. C. Candidus recommended that the Association should co-operate with the N.A.R.D., and also that the members should work to secure the repeal of the stamp tax on medicines. The President's address, which also contained other recommendations, was referred to a committee for consideration, and, at the last session, the Association decided to re-enter the National Association of Retail Druggists, and the Secretary was authorized to telegraph the information to the headquarters of the National Association. The co-operation of the Association was pledged to the movement to secure more recognition and better pay for the pharmacists in the Marine Hospital Service. A committee, consisting of Messrs. McVay, Brigham and Braun, was appointed to consider the feasibility of adopting a formulary for use throughout the State. The committee reported favorably, and the President, Secretary and Executive Committee were instructed to issue during the coming year such a work. The following officers were elected: President, G. B. McVay, of Birmingham; Vice-Presidents, Thomas W. Peagler, of Greenville; R. H. Stickney, Jr., of Anniston; Secretary, L. S. Brigham, of Montgomery; Treasurer, E. E. Elam, of Anniston; Local Secretary, J. D. Burke, of Montgomery; Executive Committee, W. E. Bingham, Tuskaloosa, A. E. Brown, Mobile, and C. B. Goldthwaite, of Troy. A motion to increase the dues to \$1.50 per member was lost. Montgomery was selected as the place for holding the next meeting.—*Pharm. Era*, 1900, p. 597.

ARKANSAS ASSOCIATION OF PHARMACISTS.

The Arkansas Association of Pharmacists held its annual meeting at Little Rock, June 11th and 13th. Interesting papers were read by J. H. Chestnutt, Hot Springs, W. W. Kerr and J. W. Beidelman, Little Rock. Resolutions were adopted for a closer affiliation with the National Association of Retail Druggists, and memorializing Congress to abolish the stamp tax on patent medicines. The following officers were elected: President, E. F. Klein, Hot Springs; Vice-Presidents, W. L. Dewoody, Pine Bluff, and M. A. Eisele, Hot Springs; Secretary, James A. Ginocchio, Little Rock; Treasurer,

John A. Jungkind, Little Rock; Executive Committee, Charles K. Lincoln, J. B. Bond, Jr., and J. F. Dowdy, Little Rock. The next meeting will be held May 21, 1901, in Little Rock.—*Ibid.*, June 28, 1900.

COLORADO PHARMACAL ASSOCIATION.

The Colorado Pharmacal Association held its annual meeting at Manitou, June 13th and 14th. Several business sessions were held, the annual address being delivered by C. L. Prowitt, of Denver. The following officers were elected: President, Charles E. Barnes, Denver; Vice-Presidents, W. L. Shockey, Cripple Creek; Daniel Y. Wheeler, Denver; Treasurer, J. F. Fezer, Greeley; Secretary, Charles E. Ward, Denver; Local Secretary, F. B. Fox, Manitou. Fred J. Hill, of Salt Lake, was elected an honorary member. Manitou was chosen as the place for the next annual meeting, and the dates June 18th, 19th and 20th selected as the time. The Auxiliary Association, comprising the ladies of the Association, and known as the "Silent Partners," elected the following officers: President, Mrs. Charles Ford, Denver; Vice-Presidents, Mrs. Charles Ward, Denver; Mrs. Harry Canfield, Leadville, and Mrs. Hatfield, Colorado Springs; Corresponding Secretary, Mrs. L. Bridaham, Denver; Recording Secretary, Mrs. J. J. Cronin, Denver.—*Ibid.*, June 28, 1900.

CONNECTICUT PHARMACEUTICAL ASSOCIATION.

The annual meeting of the Connecticut Pharmaceutical Association was held at Hartford on June 12th-13th.

Following the reception of delegates and various routine business came the President's annual address. In it President C. F. Williams reviewed briefly the results of the year and urged the importance of membership in the Association from a professional point of view. The efforts during the past year to increase the membership had been very satisfactory. The present roll includes about 300 names. There had been no legislative matters to receive attention during the year, as the General Assembly had not been in session.

The Chairman of the Legislative Committee made a report in which were discussed the various laws pertaining to the regulation of liquor sales by druggists in the States of Massachusetts, New York

and Connecticut. The cost of a druggist's liquor license in Connecticut is \$50, in Massachusetts the cost is merely nominal, \$3.50 being the figure, while in New York State the cost of a storekeeper's license varies according to the locality, \$200 being charged in Manhattan, \$100 in Brooklyn, and correspondingly less in the smaller cities and villages. It appears that liquors cannot be dispensed on prescription in Connecticut unless the druggist holds a liquor license costing him \$50. A license entitling druggists in the State of New York to dispense whiskey and similar alcoholic beverages on prescription, the same being an ingredient of a mixture of other substances, costs but \$5 uniformly throughout the State. The question of the constitutionality of the State exacting a liquor license tax on prescriptions was discussed and some difference of opinion was expressed. On motion, the Chairman of the Committee on Legislation was empowered to represent the Association at the sessions of the Legislature and employ counsel in his discretion.

Chas. W. Whittlesey, of New Haven, addressed the members by request of President E. C. Frisbie, of the National Wholesale Druggists' Association, as a delegate from that body, and expressed considerable satisfaction at the agreement which had been reached between the three branches of the trade in regard to the distribution and sale of proprietary medicines.

The N.A.R.D. was endorsed, and John K. Williams read two papers, one on "Soda Water Syrups and their Serving" and the other "Notes on Every-day Pharmacy."

The following officers were elected: President, Charles S. Finch, Stamford; First Vice-President, Charles Fleischner, New Haven; Second Vice-President, Nathaniel K. Morgan, Hartford; Secretary, Charles A. Rapelye, Hartford; Treasurer, John B. Ebbs, Waterbury.—*Amer. Drug.*, 1900, p. 411.

INDIANA PHARMACEUTICAL ASSOCIATION.

The nineteenth annual meeting of the Indiana Pharmaceutical Association was held at South Bend, June 13-15, 1900. President F. D. Warner, New Carlisle, delivered the annual address, and said among other things:

"I have the pleasure of presenting to you a review of the past years,

progress. The past year has been the most eventful one in the Association's history. At our last annual meeting the pharmacy bill, a measure for which we are responsible, had not become a law. It was then awaiting the action of the Senate. However, so confident were we of its passage that measures were taken which resulted in the selection of a list of representative members. By further action of the meeting the names were placed in my hands to present at the proper time to His Excellency for his approval. Your instructions were faithfully carried out. While the Governor failed to comply with our recommendations in full, he is to be congratulated on his wise and very able selections. By this measure becoming a law we have been transformed from plain, every-day druggists into registered pharmacists, and with the restrictions and limitations it imposes it also confers a certain amount of professional dignity that we have not heretofore enjoyed. In times past pharmacy was a profession only; now it is both a profession and a trade, and the successful pharmacist must be one who can combine professional dignity with mercantile ability. Hence, to my mind, the importance of the Association developing and making more prominent the commercial interests of the pharmacist."

The President dwelt on the action of the Association in protesting against the proprietary men putting up prices because of the stamp act, its vigorous action being alleged to be one of the principal factors in bringing about the organization of the N.A.R.D. He also spoke of the unsatisfactory and impracticable features of the present liquor law, as far as it related to pharmacy, and suggested an amendment that would place the sale of liquor for strictly medicinal purposes under the control of the State Board of Pharmacy.

Among the papers presented were the following: "Some Data on How the Pharmacist Can Save Money by Being His Own Manufacturer," by Edmund A. Geyer, South Bend; "Business Methods," by Otto Gross, Fort Wayne; "Peppermint," by Leo Eliel, South Bend; an interesting talk on "The Cultivation of Peppermint," by Philip Holler; "Surface Tension," by John H. Cloud; a humorous paper on "How Long Will Phosphorus Pills Keep?" by J. N. Hurty.

The following officers were elected: President, F. W. Meissner, La Porte; First Vice-President, Otto Bastian, South Bend; Second Vice-President, D. H. Lohman, Lafayette; Third Vice-President,

Ernest Stahlhuth; Secretary, A. Timberlake; Treasurer, Frank H. Carter; Executive Committee, Frederick H. Burton, Evansville; W. O. Gross, Fort Wayne, and F. E. Wolcott, Indianapolis.—*Ibid.*, 1900, p. 412.

MASSACHUSETTS PHARMACEUTICAL ASSOCIATION.

The annual meeting of the Massachusetts Pharmaceutical Association was held at Newburyport, June 19–21, 1900. The address of the President, William D. Wheeler, contained a number of recommendations, which were reported upon as follows by the committee having the address under consideration:

That the Association continue its membership in the National Association of Retail Druggists; that the United States Government be memorialized urging the raising of hospital stewards in the army to the rank of commissioned officer; that a committee codify the pharmaceutical laws; that \$100 be appropriated for the Legislative Committee; and that the law be so amended that the State Board can no longer revoke certificates of pharmacy, but may suspend them

The following officers were elected: President, F. A. Hubbard, of Newton; Vice-Presidents, L. E. Heinritz, of Holyoke; W. J. Bullock, of New Bedford, and Charles L. Davis, of Newburyport; Secretary, J. F. Guerin, of Worcester; Treasurer, Thomas B. Nichols, of Salem; Trustees of Permanent Fund, F. E. Mole, of Adams; Henry Canning, of Boston, and J. H. Whitney, of Great Barrington.

George M. Hoyt, of Weymouth; Fred A. Hubbard, of Newton, and Thomas B. Nichols, of Salem, were nominated for the vacancy on the Board of Pharmacy, which will occur October 1st. These three names will be presented to the Governor by a committee of twenty-five members of the Association.

J. J. Curran presented a resolution memorializing the State authorities regarding the commissioning of hospital stewards in the State militia and endorsing the stand taken by the American Association with regard to the same being done in the United States army. It was unanimously adopted.

T. T. Drake read a paper on the drugs and chemicals that varied from the standard of strength and purity which have come under his notice during the past year.

Profs. Julian W. Baird and Robert T. Greenleaf, of the Massachusetts College of Pharmacy, were elected honorary members.

C. B. Emerson, of Haverhill, H. M. Whitney, of Lawrence, Amos Tilden, of Boston, and others who have been in the business for from twenty-five to fifty years, gave reminiscent talks of the changes in the drug business during their careers.—*Druggists Circular*, July, 1900.

OHIO PHARMACEUTICAL ASSOCIATION.

The twenty-second annual convention of the Ohio State Pharmaceutical Association opened June 19, 1900, at 8 o'clock P.M., in the Hotel Victory, Put-in-Bay, O., with President DeLang in the chair. The first session was devoted chiefly to the reading of the President's address, which was referred to a committee to report upon.

At the second session the report of the Pharmacopœial Committee was presented. Considerable discussion was had regarding the subject of courses of study in pharmaceutical colleges. The Association took action supporting the work done by George F. Payne, of the American Pharmaceutical Association, in raising the standing accorded to pharmacists in the army, navy and marine hospital service of the United States. It was resolved to notify the National Association of Retail Druggists of this society's endorsement of their views on the subject of trade-mark protection of foreign products. Joseph Feil read a very opportune paper on the progressive standard of education among pharmacists, entitled "The Next Step." A table and paper was presented by Prof. Theodore Wetterstroem, of Cincinnati, on the comparative alcoholic strength of proprietary articles. The Treasurer of the Association, Mr. J. H. von Stein, presented a prize paper entitled "What Constitutes a Good Member."

At the third session the discussion on the President's address was the chief feature, and this was followed by the report of the Ohio Board of Pharmacy, the Secretary's report, a prize paper on druggists' protective fire-insurance, by Mr. John Weyer, and the report of the Association Committee on Insurance. Officers for the ensuing year were elected, as follows: President, B. S. Young, Ada; First Vice-President, O. H. Garrett, Hillsboro; Second Vice-

President, J. O. Connor, Urbana; Executive Committee, J. H. Brinker, Bellevue; A. W. Kiler, Columbus; Albert Wetterstroem, Cincinnati; Permanent Secretary, L. C. Hopp, Cleveland; Permanent Treasurer, J. H. von Stein, Upper Sandusky. The following names were selected from which the Governor shall choose a member of the Board of Pharmacy: W. H. Miller, New Philadelphia; C. W. Tobey, Troy; W. H. Styer, Marietta; J. H. von Stein, Upper Sandusky, and Frank Amann, Portsmouth.

The fourth session was devoted to the discussion of trade protection and the formation of an auxiliary society among the druggists of the State for purposes of mutual protection and the furtherance of the legitimate drug business. Definite action was taken by the Association providing for the formation of such auxiliary society. The Committee on Pharmacy Laws was authorized to employ a person to watch out for hostile legislation and apprise the committee of it.

OKLAHOMA PHARMACEUTICAL ASSOCIATION.

The Oklahoma Pharmaceutical Association held its tenth annual meeting at Shawnee, April 4-5. By reason of the absence of the President, W. R. McGeorge, F. R. Lillie, of Guthrie, occupied the chair. The meeting was well attended, and no pains were spared to make it a success.

Among the interesting papers read were: "What Our Association Does for the Druggist," by F. B. Lillie, of Guthrie; "How Are We to Increase Our Trade and Profit?" by J. C. Burton, of Stroud; "Keeping Stock," by W. B. Wheeler, of Guthrie; "Some Preparations Profitable for Oklahoma Druggists to Make," by C. R. Miller, of El Reno; "Notes from the N.A.R.D.; What it Has Done and What it is Doing for the Retail Druggists."

The following officers were elected for the ensuing year: President, C. A. Dow, Pond Creek; First Vice-President, J. C. Burton, Stroud; Second Vice-President, Fred Reed, Norman; Secretary, F. M. Weaver, Oklahoma City; Assistant Secretary, C. C. Pottenger, Shawnee; Treasurer, L. J. Hord, Ponca City; Local Secretary, J. W. Pryor, Oklahoma City. Oklahoma City was selected as next meeting place, and the date for the meeting fixed on the second Wednesday of May, 1901.—*Pharm. Era*, 1900, p. 597.

SOUTH CAROLINA PHARMACEUTICAL ASSOCIATION.

The twenty-fourth annual meeting of the Pharmaceutical Association of South Carolina was held on May 17th, at Charleston. Reports were read by the President, the Secretary and the Chairman of the Examining Board, in all of which the forward movement in pharmacy in this State was clearly shown. Memorial resolutions on the death of the late President, Peter Robertson, of Newberry, were read, and a touching tribute was paid to his memory as a pharmacist and a man. After routine business, the following officers were elected for the ensuing year: President, O. Y. Owings, Columbia; First Vice-President, John B. Johnson, Rock Hill; Second Vice-President, A. A. Kroeg, Charleston; Secretary and Treasurer, Frank M. Smith, Charleston; Solicitor, Hon. J. E. Burke, Charleston; members of the State Board, O. Y. Owings, Columbia; O. E. Thomas, Columbia; J. G. De Lorme, Sumter; Julian A. Barbot, Charleston; Edward S. Burnham, Charleston, Chairman; M. H. Sandifer, Rock Hill, Secretary.

TEXAS PHARMACEUTICAL ASSOCIATION.

The Texas Pharmaceutical Association held its annual meeting at Dallas, May 15th-17th. President Hazlett urged the Association to greater effort toward securing the passage of a pharmacy law which will meet all the requirements of the drug trade. He thought much good would come from the work of the National Association of Retail Druggists, and suggested the organization of local associations in every city and county to help the work along. The repeal of the stamp tax was also urged.

The Secretary and Treasurer, R. H. Walker, reported a cash balance of \$314. The Committee on President's Address approved the various recommendations made, and suggested that a committee be appointed to draft a law which will follow the bill drafted by the Association in 1898, and embodying the following points: That no certificate shall be issued to any person upon presentation of a diploma; that no one shall be allowed to present him or herself for examination before the Board of Pharmacy except he or she shall have had four years' experience, at least two of which shall have been spent in the compounding and dispensing of prescriptions under the supervision of a "registered pharmacist," or in lieu thereof upon

presentation of a diploma from a school of pharmacy. Evidence of experience as hereinbefore defined shall be certified to by a notary public.

The committee's report was adopted by the Association.

Reports of delegates to other associations were read, and a draft of the proposed amended pharmacy law was presented. The latter was fully discussed and finally referred to the Legislative Committee, with instructions to secure its passage by the Legislature. The proposed amendments to the present law governing the sale of liquor also came in for much discussion, and the matter was left in the hands of a committee to take such action as it thought proper to get the relief it believed the druggists should have.

The following officers were elected: President, J. L. Hazlett; Vice-Presidents, J. J. Schott, J. J. Thames and W. S. Kirby; Secretary, R. H. Walker; Trustee, George J. F. Schmidt. C. E. Craycroft, Sherman, was appointed Local Secretary for the next meeting. Seventy-eight new members were elected. The Association will hold its next meeting at Sherman on the third Tuesday in May, 1901.—*Pharm. Era*, 1900.

MINUTES OF THE QUARTERLY MEETING OF THE PHILADELPHIA COLLEGE OF PHARMACY.

The regular quarterly meeting of the members of the Philadelphia College of Pharmacy was held on June 25th, Mr. Howard B. French, President, in the chair.

Eighteen members were present.

Mr. French, in taking the chair, addressed the members briefly, expressing his thanks for the honor conferred in electing him President, and assuring them of his great desire to labor earnestly for the welfare of the College, and requested and expected the hearty co-operation of every member, and hoped that still greater success would attend their efforts in the future.

The minutes of the annual meeting, held March 26th, were read and approved. The minutes of the Board of Trustees for the meetings in April, May and June were read by the Registrar, Mr. W. Nelson Stem, and approved.

The report of the delegates to the American Pharmaceutical Association, held in Richmond, Va., May 7th-12th, was presented by Prof. C. B. Lowe. The delegates to the Convention to Revise the United States Pharmacopoeia, held at Washington, D. C., May 2d-4th, reported verbally, through Prof. Joseph P. Remington. The proceedings of these bodies have been very fully reported in the *AMERICAN JOURNAL OF PHARMACY*, June Number, pages 276-308.

Mr. George M. Beringer read a memoir of Charles Bullock, the late President of the College. Mr. Wm. J. Jenks and Professor Remington also referred to

the services of Mr. Bullock, confirming from personal knowledge the statements made by Mr. Beringer.

The memoir was referred to the Committee on Publication.

The subject of the consideration of the revised By-Laws of the College was then presented, and, on motion, it was resolved to consider them at an adjourned meeting to be held July 10th.

A communication was read from Mr. H. N. Rittenhouse, expressing his appreciation of the vote of thanks tendered him by the College for his long service of twenty-five years as Treasurer of the Publication Committee.

Adjourned to meet July 10th, 3 P.M.

An adjourned meeting of the members of the Philadelphia College of Pharmacy was held in the Library, July 10, 1900, at 3 P.M., Wm. J. Jenks presiding. Twenty-one members were present.

The minutes of the quarterly meeting, held June 25th, were read and approved.

The consideration of the revised By-Laws of the College was then taken up and finally adopted as a whole.

A few important changes were made. Among the most important was that of making the first annual dues of \$5, on joining the College, begin at the Annual Meeting in March.

The subject of a revision of the Code of Ethics was then introduced, and, after discussion, was referred to the Committee on By-Laws, to propose any alterations that may be deemed necessary.

Mr. Boring alluded to the work performed by the Committee on By-Laws and proposed a vote of thanks for the promptness with which they had completed their work. Adopted.

C. A. WEIDEMANN, M.D.,
Secretary.

OBITUARY.

The Paris School of Pharmacy suffered extraordinary loss during the past spring, for between March 30th and April 21st three of its professors were called from their labors.

G. PLANCHON.

Best known in pharmaceutical circles was Prof. Gustave Planchon, Dean of the Pharmacy School, President of the Committee on Publication of the *Journal de Pharmacie et de Chimie*, ex-President and General Secretary of the Society of Pharmacy, and President of the Committee on Organization of the International Pharmaceutical Congress, held in Paris during last May.

The following is a brief sketch of his inspiring life, gleaned from eulogies pronounced at his funeral:

Born in the south of France in 1833, his early education was under the direction of his brother, Planchon, the botanist. He studied medicine at Montpellier, and, after carrying off honors each of his three collegiate years, obtained his M.D. degree in 1859, and a call as instructor from his *Alma Mater*. He was then called as Instructor of Botany to Lausanne, where he taught during 1860-1862. He then returned to Montpellier, where he won the Dr.Sc.

degree and an instructorship in 1864. In 1866 he was elected Professor of *Materia Medica* of the Paris School, a position which he retained to his death.

Planchon was a brilliant teacher, an able manager and an indefatigable worker. His contributions to science were numerous and valuable, while his two books, "*Trait Pratique de la Determination des Drogues Simples*," 1875, and "*Drogues Simples d'Origine Vegetale*," 1895, are classics of pharmacy.

His last appearance was at the grave of his colleague, Professor Beauregard, where he, despite an attack of grippe, pronounced the eulogy. Immediately thereafter he sought recuperation at his old home, Montpellier, where he died April 16th.

H. BEAUREGARD.

H. Beauregard, a pupil of Planchon, was born in Havre in 1855. He studied at Paris science, medicine and pharmacy, his high scholastic record winning for him successively the positions of hospital interne, preparateur in natural sciences, laboratory instructor in chemistry and quiz-master in the natural sciences. In 1885 he added to his other duties that of naturalist in the laboratory of comparative anatomy, at the same time making investigations which brought him much distinction. Of special pharmaceutical interest was his work on spermaceti, ambergris and cantharidin. In 1898 he was given the chair of cryptogamic botany in the School of Pharmacy, and a most striking proof of his versatility was shown in the able manner in which he taught this branch, in which he had scarcely specialized. Two short years was he permitted to enjoy the highest fruits of his labor, for, on March 30th, he was called upon to lay his burden down.

A. MILNE-EDWARDS.

Alphonse Milne-Edwards, Professor of Zoology and Director of the Museum of Natural History, Paris School of Pharmacy, died April 21st. Reared among the rich collections of the Museum of Natural History, his entire career was devoted to the Paris School, to which he was called as professor in 1865, when scarcely thirty years old.

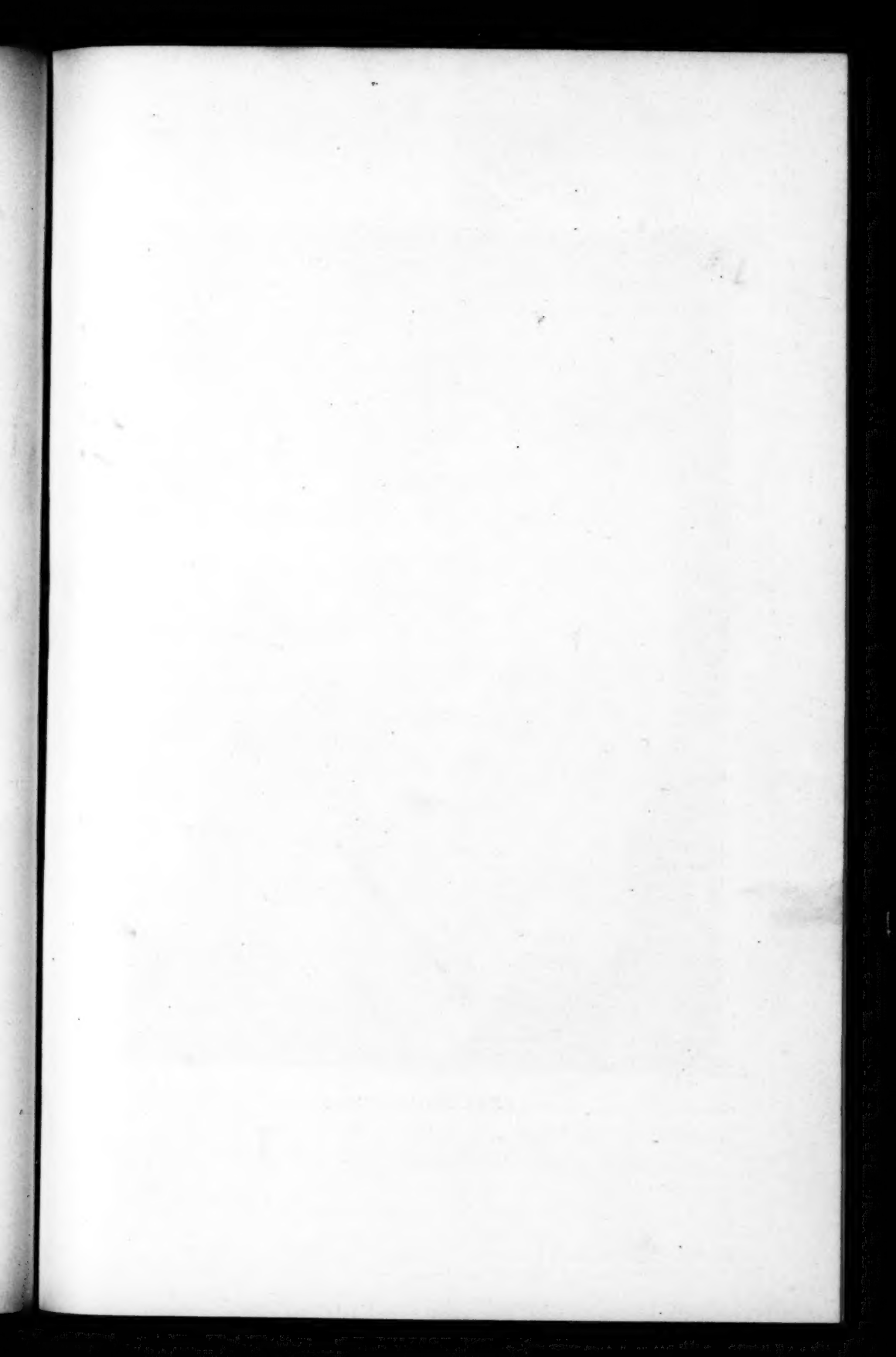
To him his science was his life, and recital of his achievements is at once the inspiration and the despair of his less gifted followers.

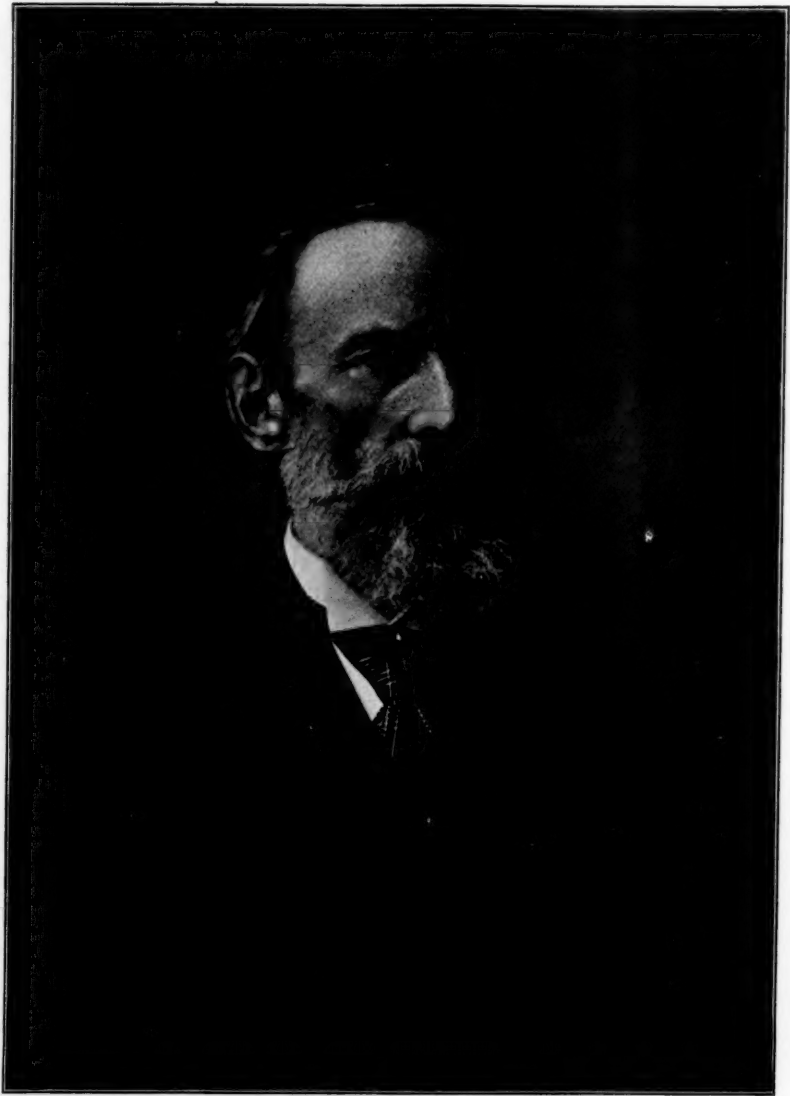
On submarine fauna he was unexcelled. Beside proving that animal life existed 1,200 fathoms beneath the surface of the sea (1860), he organized two scientific dredging explorations, under the auspices of the French Government, winning by his efforts the gold medal of the Geographic Society.

In 1869 he published a work on the fauna of the southern hemisphere, which has become a classic, it being given that high distinction, "*couronné par l'Academie*." He next turned to paleontology, the fossil crustaceae being his first subject, and then the osteology of prehistoric birds, the latter work (1869-1871) bringing for him the grand prize of the Academy of Sciences. In his later years he studied the fauna of Madagascar.

H. V. ARNY.

CHLORINATED LIME.—The amount of chlorine in *Calx chlorata* is determined by Wolanski (*Ann. de Chim. Anal.*, 1900, p. 235), as follows: The solution of *Calx chlorata* (about 1 per cent.) is poured into 5 c.c. of a potassium iodide solution (0.1 per cent.) acidified with H_2SO_4 . The iodine combines with the chlorine, forming ICl_3 , and the solution becomes decolorized.





CHARLES BULLOCK.